The Examiner objects to the Abstract because it contains the word "said". By the accompanying amendment, the Abstract has been amended to eliminate this informality.

The Examiner rejects claims 1-3 and 5-7 under 35 U.S.C. §102(b) as being anticipated by Key et al. The Examiner states Key et al. disclose each element of these claims.

By the accompanying amendment, claim 1 has been amended to recite that the arithmetic unit compares the photodetection amount of the reflection light beam, the result of the distance measurement based on the reflection light beam and the prestored reference data and determines whether the object to be measured is a prism or a natural object. Support for the amendment can be found at pages 10-12 of the specification, for example.

Key et al. disclose a laser range finder that uses a semiconductor laser operating in the visible light range. A microprocessor, which the Examiner compares to the instantly claimed arithmetic unit, determines the distance from the device to an object being measured by comparing the phase difference of a ranging laser beam reflected from the object and a reference laser beam retained within the device. Key et al. do not disclose or suggest components for determining whether the object to be measured is a prism or a natural object based on data obtained by associating the amount of reflection light from the object to be measured and the measured distance.

As shown in Figure 3 of the instant specification, the amount of reflection light from a prism is different from the amount from a natural object. The present invention as now claimed utilizes this phenomenon to determine the nature of the object to be measured. This is nowhere disclosed or suggested by Key et al.

The Examiner also rejects claim 4 under 35 U.S.C. §103(a) as being unpatentable over Key et al. in view of Schreuder. The Examiner admits that Key et al. do not disclose a distance measuring system wherein the reference data relating to the reflection of the object to be measured contains a

change of the photodetection amount due to weather conditions, but cites Schreuder as teaching the inherent inaccuracies in measurements and the use of a database of collected behavioral characteristics to improve the accuracy. The Examiner concludes that it would have been obvious to modify the device of Key et al. by including the Schreuder reference database containing changes in photodetection values due to environmental conditions.

Schreuder discloses continuous wave electromagnetic distance measurement apparatus that reduces or eliminates inaccuracies introduced by transmission noise and multi-path reflections. Weather-related conditions are not disclosed.

Claim 4 also is believed to be allowable by virtue of its dependence, for the reasons discussed above.

New claim 8 has been added to further define the invention. Support for claim 8 can be found at page 8 of the specification.

Reconsideration and allowance are respectfully requested in view of the foregoing amendment and remarks.

Respectfully submitted,

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Version with Markings to Show Changes Made

In the specification:

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ABSTRACT OF THE DISCLOSURE

A distance measuring system, which comprises a control arithmetic unit 1, a light emitting unit 2 for emitting a measuring light beam and a photodetection unit 3 for receiving a reflection light beam from an object to be measured, [and said] the system being used for measuring a distance by receiving [said] the reflection light beam from [said] the object to be measured, wherein [said] the control arithmetic unit compares a signal based on the photodetection amount of the reflection light from [said] the object to be measured as well as a result of the distance measurement with [a] reference data prestored in [said] the control arithmetic unit relating to the reflection of [said] the object to be measured, and judges [said] whether the object to be measured is a prism or a natural object based on a result of the comparison.

In the claims:

1. (Amended) A distance measuring system for measuring distance by receiving a reflection light beam from an object to be measured, comprising a control arithmetic unit, a light emitting unit for emitting a measuring light beam, and a photodetection unit for receiving [a] said reflection light beam from [an] said object to be measured and for issuing a signal based on a photodetection amount of said reflection light beam, and a display unit for displaying the result of a calculation of said arithmetic unit, wherein there is provided prestored data that is obtained by associating the measured distance and the photodetection amount of said reflection light beam according to said object to be measured, and [said system being used for measuring a distance by receiving said reflection light

beam from said object to be measured,] wherein said control arithmetic unit compares the [a signal based on] photodetection amount of [the] said reflection light beam from said object to be measured, [as well as] a result of distance measurement based on said reflection light beam and said prestored reference data, and judges whether said [with a reference data prestored in said control arithmetic unit relating to reflection of said object to be measured, and judges] said object to be measured is a prism or a natural object based on [a] the result of the comparison, and wherein the result of said judgement is displayed on said display unit.

2. (Amended) A distance measuring system according to claim 1, further comprising a density filter for adjusting said photodetection amount of said reflection light beam from said object to be measured, wherein an adjusting [said signal based on said photodetection amount represents a density] position of said density filter is associated with said measured distance, and said reference data obtained by the association is stored for judging said object to be measured as said reference data [relating to reflection of said object to be measured is obtained by associating a measured distance with said density position of said density filter].

6. (Amended) A distance measuring system according to claim [5] 1, wherein there are provided at least a prism measurement mode and a non-prism measurement mode, and when said prism mode is selected, said distance is displayed on said display unit only when said object to be measured is judged as a corner cube, and the fact that said object to be measured is not a corner cube is displayed on said display unit when said object to be measured is not judged as a corner cube.

7. (Amended) A distance measuring system according to claim [5] 1, wherein photodetection sensitivity can be automatically changed over according to said photodetection amount of said reflection light beam from said object to be measured, said object to be measured is judged according to said photodetection amount, and [a] the result of judgment on said object to be measured is

displayed on said display unit.

8. (Newly added) A distance measuring system according to claim 1, further comprising a mode changing switch for selecting a prism mode for using a prism as said object to be measured and a non-prism mode for using a natural object as said object to be measured.